

Notice of Allowability	Application No.	Applicant(s)	
	10/670,639	LYLE ET AL.	
	Examiner	Art Unit	
	Dai A. Phuong	2688	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/18/2005.
2. ☒ The allowed claim(s) is/are 1-33.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>09/23/2005</u>. 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|---|---|


GEORGE ENG
PRIMARY EXAMINER

DETAILED ACTION

1. This is in response to the Applicant's amendments and arguments filed on October 05, 2005 in which claims 1-33 have been amended. Claims 17-30 are currently pending.

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance:

Claims 1-33 are allowed.

Applicant's invention is drawn to an access point mitigation apparatus for mitigating data rate degradation of wireless communications between a wireless access point and a wireless client is provided with a logic unit containing a plurality of modules configured to functionally execute the necessary steps of mitigating data rate degradation of wireless communications between a wireless access point and a wireless client. These modules in the described embodiments include a channel assessment module, a channel selection module, a channel connection module, a channel switching module, and a client notification module. The channel assessment module is configured to assess the quality of the wireless communications on a plurality of channels. The channel assessment module may monitor and measure any interference activity that is present on any given channel, assessing the time duration, power level, source type, or any other characteristic of the interference signal or source. The channel selection module, in one embodiment, is configured to select the best communications based on the channel assessment performed by the channel assessment module. The channel selection module may select a channel with no known activity or may select a channel with an estimated minimum amount of interference activity. The channel connection module is configured to facilitate a new connection between the wireless access point and a wireless client device on the new best

channel. If wireless communications are in progress at the time of the assessment and selection, the channel switching module may facilitate discontinuing previous wireless communications prior to commencing wireless communications over the new best communications channel. The channel switching module may wait until ongoing wireless communications are completed. The channel switching module may temporarily suspend the ongoing wireless communications in order to facilitate the channel switch. The client notification module is configured to notify the wireless client device that the wireless access point will be switching wireless communications to the new best communications channel. The notification may include instructions concerning the switching process, such as how ongoing wireless communications will be handled, as well as information regarding when the wireless access point will begin communicating on the new best communications channel.

Applicant's independent apparatus claims 1, 12, 15 and 33 each recites, inter alia, an access point mitigation apparatus for mitigating access point data rate degradation with respect to a wireless communication between an access point and a client as defined in the specification ([0047] to [0080]), the access point mitigation apparatus comprising: **the channel assessment module further configured to update the plurality of communications quality parameters in response to identifying a type of interference source based on the characteristics of an interference signal present on one of the plurality of wireless communications channels; a channel selection module configured to select a best wireless communications channel from the plurality of communications channels based on the plurality of communications quality parameters.** These limitations, in conjunction with all limitations of the independent claims, have not been disclosed, taught, or made obvious over the prior art of record.

Applicant's independent claims 16, 20, 21 and 32 each recites, inter alia, a process for mitigating access point data rate degradation with respect to a wireless communication between an access point and a client as defined in the specification ([0047] to [0080]), the process comprising: **wherein the plurality of communication quality parameters are updated in response to identifying a type of interference source based on the characteristics of an interference signal present on one of the plurality of wireless communications channels; selecting a best communications channel from the plurality of communications channels based on the plurality of communications quality parameters.** These limitations, in conjunction with all limitations of the independent claims, have not been disclosed, taught, or made obvious over the prior art of record.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submission should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Art Unit: 2688

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dai Phuong

AU: 2688

Date: 12-10-2005


GEORGE ENG
PRIMARY EXAMINER